

For the Year 1932

ON THE

Malvern Urban District

 $\mathbf{B}\mathbf{Y}$

C. R. P. MITCHELL, M.D.,

Medical Officer of Health;

AND

HUGH L. WHITWHAM, M.S.I.A.,

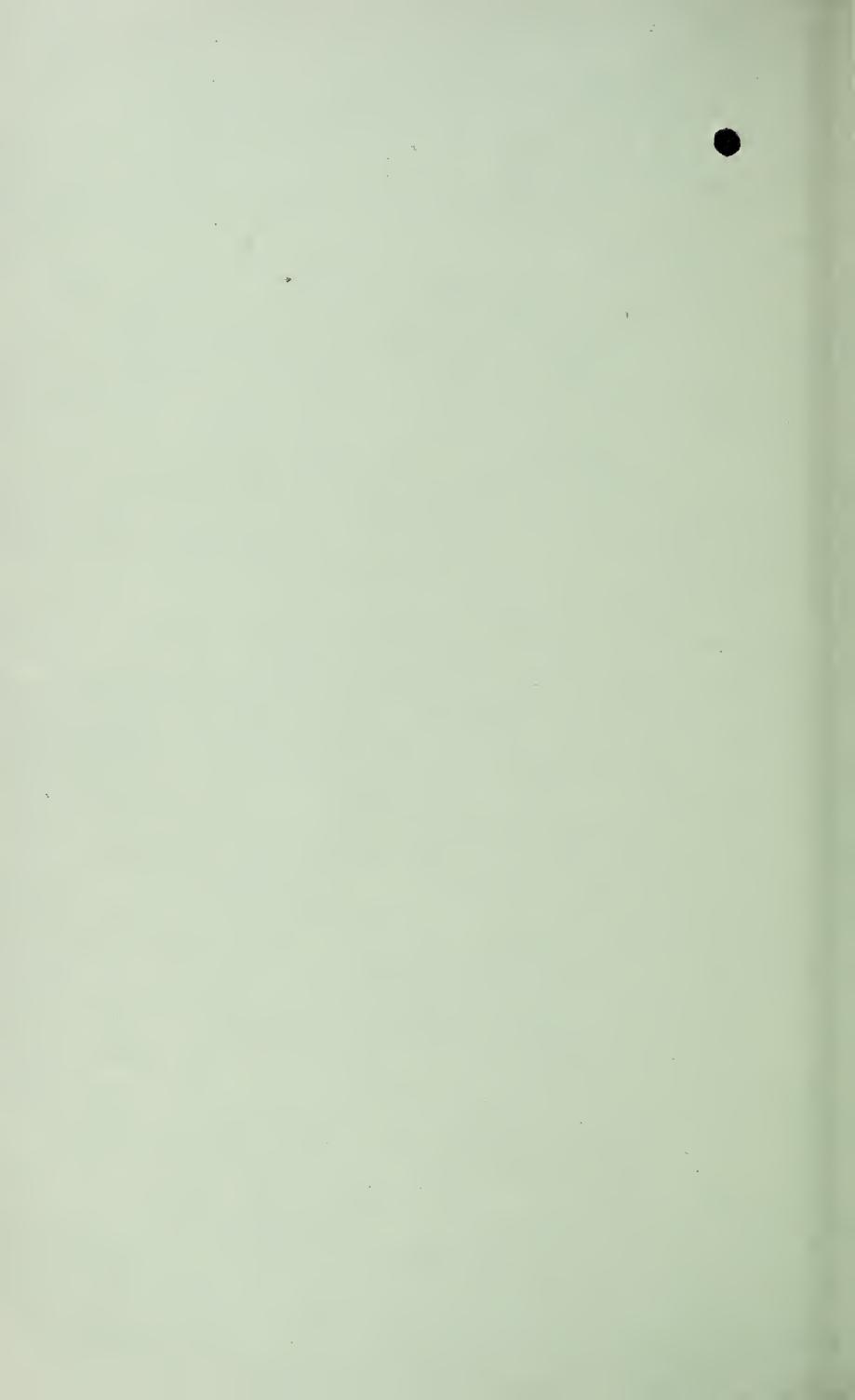
Sanitary Inspector.

63

malvern:

PRINTED BY M. T. STEVENS, LTD., CHURCH STREET.

B.F. 20/8 Stats



ANNUAL REPORTS

For the Year 1932

ON THE

Malvern Urban District

BY

C. R. P. MITCHELL, M.D.,

Medical Officer of Health;

AND

HUGH L. WHITWHAM, M.S.I.A.,

Sanitary Inspector

50

Malvern:

PRINTED BY M. T. STEVENS, LTD., CHURCH STREET.



Southfield House,

Malvern,

May, 1933.

To the Chairman and Members of the Malvern Urban District Council.

Ladies and Gentlemen,

I have the honour to present my Report for the year 1932, this being my twenty-fifth report as your Medical Officer of Health.

Again the Ministry of Health direct that this is to be an ordinary report and not a full survey report as in 1925.

The schedule of the information required differs a little from that of last year.

Copies of this report will be sent, as usual, to the Ministry of Health, the Home Secretary, and the County Council.

A.—Statistics and Social Conditions of the Area.

| 4,777 | | | • • • | • • • | Acres) | Area (in |
|----------|-------|--------|----------|---------|-----------|-----------|
| | ident | of Res | imate c | l's est | -General | Registrar |
| 16,630 | • • • | | | 1932 | ılation, | Popu |
| | 1932) | nd of | ouses (e | ted ho | of inhabi | Number o |
| 4,283 | • • • | | Books | Rate | rding to | accor |
| £137,143 | | | • • • | | Value | Rateable |
| £530 | | Rate | Penny | by a | esented | Sum repr |

The Registrar-General estimates the population this year at 16,630, an increase of 400 over last year, but still I think a low estimate. At the 1921 Census the figure was 17,809, but the Registrar-General reduced the Resident Population to 17,008. During this last decade the school population has increased materially, which should have more than counter-balanced any falling off in the general population.

Representations on this question have been made to the Registrar.

Social Conditions.

The District is mainly residential, and there are a large number of Public and Private Schools for boys and girls. There is no large industry to have any effect on public health.

VITAL STATISTICS.

BIRTH RATE.

During the year 168 births were registered as belonging to the District, of these 8 were illegitimate; the resulting Birth Rate is 10'1 per 1,000 of the Resident Population.

There were 10 still-births, giving a still-birth rate of 56'1 per 1,000 total births.

The Birth Rate for England and Wales was 15'3 per 1,000 of the population.

DEATH RATE.

In the District itself 206 deaths were registered; the inward transfers of persons belonging to the District who died elsewhere number 33, which is an equal number to last year. With outward transfers of people belonging to other districts who died here the figure given for the district is 224, as compared with 220 last year. From this figure the Death Rate is 13'5 per 1,000 of the Resident Population.

The Death Rate for England and Wales was 12'0 per 1,000 of the population.

DEATHS FROM PUERPERAL CAUSES.

There was no death from Puerperal Sepsis.

There were two deaths from other puerperal causes, one from Post Pactum Hæmorrhage and the other from hæmorrhage due to Placenta Prævia: these give a Puerperal death rate of 11'1 per 1,000 total (live and still) births.

INFANTILE MORTALITY.

During the year 13 infants under 1 year died and the resulting Infantile Mortality is 77'4 per 1,000 births registered.

The causes of death were unusual, and 8 of the deaths occurred within 24 hours of birth: of these, 2 were due to neglect at birth—one being a Coroner's case and the other a discharge by the Magistrates; 5 were due to Premature Birth (in one of these there was the complication of Placenta Prævia), and Asphyxia of the newborn accounted for the remaining one after 12 hours.

I cannot recall any year in my experience in which conditions have approached this, and I hope that this year will be quite exceptional.

The causes of death of the remaining 5, at ages from 2 months to 9 months, were Acute Bronchitis, Marasmus and Convulsions, Broncho-Pneumonia, Whooping-Cough and Marasmus, and congenital Specific Disease.

Deaths from Measles (all ages)—None.

Deaths from Whooping Cough—One, a complication in an infant of two months who was suffering from Marasmus.

Deaths from Diarrhœa (under 2 years)—There were no deaths from this disease.

There was no unusual or excessive mortality during the year, and no cases of sickness or invalidity which require special notice.

Influenza was not prevalent and what there was, was of a mild character.

The principal causes of death for the year, with the corresponding figures for last year, are given in the following table:—

| | | | | | 1932. | 1931. |
|------------|---|----------|---------|------|-------|-------|
| Measles | | | | | О | 2 |
| Whooping | Cough | | | | I | 0 |
| Influenza | • | | | | 6 | 3 |
| Tuberculos | is of the Re | espirate | ory Sy: | stem | 9 | 9 |
| Other Tube | erculous Dis | eases | | | 2 | 3 |
| Syphilis | | | | | 2 | 0 |
| Cancer, Ma | alignant Dis | sease | | | 32 | 29 |

| | | | | 42 |
|-------------------------------|---------|-------|-------|-------|
| | | | 1932. | 1931. |
| Diabetes | | • • • | 4 | 3 |
| Cerebral Hæmorrhage, etc. | | | 18 | 19 |
| Heart Disease | | | 57 | 59 |
| Aneurysm | | • • • | I | O |
| Other Circulatory Diseases | | | 15 | 17 |
| Bronchitis | | | 3. | C |
| Pneumonia (all forms) | | | 9 | IO |
| Other Respiratory Diseases | | • • • | 2 | 2 |
| Appendicitis | • • • | | 2 | O |
| Diseases of Liver (other than | n Cirrh | osis) | 2 | 2 |
| Other Digestive Diseases | | | I | 6 |
| Acute and Chronic Nephritis | | • • • | 7 | . 5 |
| Accidents and Diseases of | Pregn | ancy | | • |
| and Parturition | • • • | | 2 | О |
| Congenital Debility and Ma | lforma | tion, | | |
| including Premature Birt | :h | | 6 | 8 |
| Senility | • • • | | 13 | 12 |
| Suicide | | | 3 | 3 |
| Other Deaths from Violence | | | 5 | 6 |
| Other Defined Diseases | | | 20 | 1.1 |
| Causes Ill-defined | • • • | • • • | 2 | 2 |
| | | | | |

3 of the deaths were of persons of 90 years or over, the oldest being 97, and death was caused by an accidental fall.

B.—General Provision of Health Services for the Area.

Conditions of Hospitals and facilities for treatment remain as fully described in my Annual Report for 1930.

Public Health Officers of the Authority.

(a) Medical—Medical Officer of Health:

C. R. P. Mitchell, M.D. (part time).

Superintendent of Isolation Hospital:

J. B. Jessiman, M.B. (part time).

(b) Others — Sanitary Inspector and Inspector under Housing Acts: Hugh L. Whitwham, M.S.I.A.,

Cert. of R. San. Inst. and Sanitary Inspectors' Examination, Joint Board, as Sanitary Inspector; Cert. of R. San. Inst. as Inspector of Meat and Foods. Appointed in October, 1932, in place of Mr. H. Hillyard, who retired in October.

Veterinary Surgeon: B. Secker, M.R.C.V.S.

Mr. Hillyard, who retired in October under the Superannuation Scheme, had completed almost 36 years of service under the District Council: so highly did the Public Health Committee think of his abilities that they recommended the Council to extend his period of service twice for periods of 12 months, after he had attained the retiring age of 65.

Mr. Hillyard was appointed in the year 1896 at the age of 31, coming here from the Metropolitan Borough of Islington where he had obtained invaluable experience as one of sixteen Inspectors on the staff for a period of 4 years.

It is strange to think to-day that at the date of Mr. Hillyard's arrival in Malvern there was no proper water supply, and that in a large part of the town there was no sewerage, and what sewers there were, were of the old brick barrel type.

It may be said that Mr. Hillyard's life work, in conjunction with Sir Henry Maybury and Mr. W. O. Thorp, was the complete system of modern sewerage and drainage over the whole area which the District now has; and as a result the statistics of disease of an enteric character are quite different to-day.

His straightforwardness, his patience and his tact in the carrying out of his difficult, and at times uncongenial duties have been a great asset to the Council and to the town generally. He was eminently trustworthy (and I use that word emphatically), and no second-rate work would escape his notice and be allowed to pass. He was one of the chief witnesses in the Fergusson Case in 1908, and was complimented by the late Mr. Justice MacCardie, the junior Counsel for the Malvern Urban District Council, on the manner in which he had given his evidence.

During the Food Control period of the War, when there was no building or reconstruction work going on, he was appointed Food Controller for the District, and took infinite pains in the carrying out of the duties of this office. His position was by no means an easy one, but he handled affairs with tact and discretion.

With the passing of time, Mr. Hillyard's reputation as an expert in matters of drainage has naturally increased, as witness his being called in as Inspector to the Malvern College—a position he continues to hold.

His thoroughness in seeking out the possible source of infection at the earliest stages of some dangerous infectious disease, has saved the District from a spread of disease not only fatal to individuals, but very detrimental to the reputation of a health resort such as this. The work of a Health Department is not spectacular, but Mr. Hillyard's work was eminently effective.

We have had many anxious times during these years, of which, of course, the general public were unaware.

The late County Medical Officer of Health—Dr. Fosbroke—who for a number of years was also Medical Officer of Health for this District, held him in the highest esteem. Dr. Wyndham Parker voiced the opinion of the County Authorities in a speech last year when he said that "if they knew Hillyard had the matter in hand, it was all right."

For myself, I can only say that I could not have had a more dependable and agreeable colleague during our 25 years of collaboration.

It is by no means always the case that the Medical Officer and the Sanitary Inspector have worked harmoniously together, but I am glad to say that it has always been so since my appointment a quarter of a century ago.

Eventually Mr. Hillyard was retired on the minimum scale under the Superannuation Act.

In his place we welcome Mr. Hugh L. Whitwham, M.S.I.A., who comes with the highest credentials from Finchley and Cheltenham.

NURSING IN THE HOME.

(a) There is no change with regard to general nursing. There are 5 District Nurses employed by 5 separate Nursing Associations—Great Malvern and Welland; Christ Church; Malvern Link; North Malvern, and West Malvern. I know from many years' experience that at times the nurse in one district may have more work to do than she can cope with, when her fellow in perhaps an adjoining parish is complaining that she has too little to do.

I would again put forward a plea for the establishment of a Central Nursing Institution, which with the extension of public telephone boxes and the cheapness and simplicity of motor-cars is much more feasible than it was when first I advocated this in the year 1911.

This is not a point of academic interest only. If I were asked the question whether I considered the money subscribed to alleviate the sufferings of the sick poor were expended to the greatest advantage, I would reply "Certainly not." I have known cases of cancer and other septic diseases, whose sores have been left to be dressed by relatives or neighbours, because the District Nurse rightly said she could not attend then as she was expecting a confinement.

(b) I should again like to report that it is to be regretted that the arrangements for the District Nurses to act as Health Visitors during Measles epidemics have been allowed to lapse.

C.—Sanitary Circumstances of the Area.

WATER.

There has been no important extension of water supply during the year, and no action has been required for any form of contamination.

All the areas of the District have a piped supply and there is no restriction on the quantity. The quality has been of its usual excellence.

Samples are sent monthly by Mr. Thorp, your Water Engineer, to the County Laboratory at Worcester for analysis, and he has kindly supplied me with the following two detailed reports:—

[COPY.]

COUNTY CHEMICAL AND BACTERIOLOGICAL LABORATORIES.

Cecil Cooke Duncan, F.I.C., F.C.S., County Analyst. SHIREHALL,
WORCESTER.

CERTIFICATE OF ANALYSIS.

Sample Tap Water, contained in W. Qt. bottle. Marked Malvern Tap Water (Bromsberrow).

I certify that I have examined the above Sample chemically and bacteriologically, with the following results:—

| | Grains | Parts per |
|----------------------------|-----------|-------------|
| | per Gall. | 100,000 |
| Solids in Suspension | None | |
| Solids in Solution | 18.9 | 27.0 |
| ,, ,, appearance | White | · |
| ,, ,, ,, after ignition | 16.1 | 23.0 |
| Phosphates | None | |
| Chlorine as Common Salt | 2.I | 3.0 |
| Free and Saline Ammonia | 0.001 | 0.002 |
| Albuminoid Ammonia | 0.002 | 0.004 |
| Oxygen absorbed in 4 hours | 0.009 | 0.013 |
| Nitrogen as Nitrates | Trace | • |
| Colour | Clear | |
| Deposit | None | |
| Smell | None | |
| Hardness— | | |
| Permanent 3.80 | Gelatine | 85 per c.c. |
| Temporary 7.10 | Agar | 12 per c.c. |

The above sample of water has been subjected to a chemical and bacteriological examination and is satisfactory.

(Signed) CECIL C. DUNCAN, County Analyst.



[COPY.]

COUNTY CHEMICAL AND BACTERIOLOGICAL LABORATORIES.

Cecil Cooke Duncan, F.I.C., F.C.S., County Analyst. Shirehall, Worcester.

CERTIFICATE OF ANALYSIS.

Sample Tap Water, contained in W. Qt. bottle. Marked Malvern Tap Water (Hill Water). Received from Mr. W. O. Thorp, Council House, Malvern.

I certify that I have examined the above Sample chemically and bacteriologically, with the following results:—

| | Grains per Gall. | Parts per |
|----------------------------|---------------------|---------------|
| Solida in Sugnancian | None | 100,000 |
| Solids in Suspension | поне | |
| Solids in Solution | 10.5 | 15.0 |
| ,, ,, ,, appearance | White | |
| ,, , ,, after ignition | 8.4 | 12.0 |
| Phosphates | None | |
| Chlorine as Common Salt | 1.4 | 2. I |
| Free and Saline Ammonia | 0.001 | 0.002 |
| Albuminoid Ammonia | 0.004 | 0.006 |
| Oxygen absorbed in 4 hours | 0.009 | 0.013 |
| Nitrogen as Nitrates | Trace | |
| Colour | Clear | |
| Deposit | None | |
| Smell | None | |
| Hardness— | | |
| Permanent 3.1° Clark | Gelatine | 69 per 1 c.c. |

Temporary 1.4° Clark Agar 10 per 1 c.c.

The water is satisfactory and fit for drinking purposes.

(Signed) Cecil C. Duncan,

County Analyst.

Drainage and Sewerage.

Mr. Thorp has kindly supplied me with the following particulars of improvements at Barnard's Green. In other parts of the District arrangements have been as in previous years, and have given rise to no complaints.

Four Sludge drying beds have been constructed during the year and a further two are in process of construction. The Sewage Disposal Works are in good order and the County Analyst's report on the effluent from the principal works at Barnards Green is satisfactory, the dissolved oxygen absorbed figures in 5 days varying from 0.7 to 1.8 parts per 100,000. The solids in suspension vary from 2.0 to 5.7 parts per 100,000, and as the stream into which the effluent discharges has a very small dry weather flow, an improvement would be effected by the provision of humus tanks.

RIVERS AND STREAMS.

There are none in the District.

CLOSET ACCOMMODATION.

Water carriage is practically universal throughout the District. The flushing apparatus in connection with water closets is frequently found to have been wilfully put out of order for purposes of economy, and this will probably continue so long as water is charged by meter.

PUBLIC CLEANSING.

Conditions remain as stated in my last report. The Council's carts collect refuse at least once a week from all parts of the District, and in the centre of the town more frequently.

- (a) Dry house refuse is collected by two S.D. lorries, or in the outskirts by horse carts.
- (b) There are practically no earth closets in the District.
- (c) Dry house refuse is conveyed to the Electricity Works where it is burnt.
- (d) There are no Cesspools in the District.

SANITARY INSPECTION OF THE AREA.

Details will be found in the Report of your Inspector, Mr. Whitwham, on page 20.

SMOKE ABATEMENT.

No action was taken during the year as regards nuisances from smoke in the area, nor was any required.

Special Classes of Premises and Occupations subject to control by the Local Authority.

There are no Houses-let-in-Lodgings, tents, vans, sheds, or lodging accommodation for Hop-pickers in the District.

The one Common Lodging House in the District has been inspected from time to time, and there have been no complaints.

The three Fish Frying establishments in the District have given no cause for complaint during the year.

OTHER SANITARY CONDITIONS REQUIRING NOTICE.

48 Council Houses were in course of erection on sites at Belmont and Pickersleigh Road under the Housing (Financial Provisions) Act, 1924, and were occupied during 1933.



RAG FLOCK ACTS, 1911 AND 1928.

There are no premises in the District on which rag flock is manufactured, used or sold.

Schools.

The sanitary condition of all the elementary schools in the District is good. Town water is supplied and water carriage drainage is universal. In one or two of the older school buildings the ventilation is not too good.

The health of the scholars was good, no doubt helped by the comparative mildness of January and February and the fine (though late) summer. The amount of infectious disease was small, as the following list of schools closed on account of Infectious Diseases shows:—

- Infants' Department, Malvern Link Council School, closed from February 15th to 19th, on account of Gastric Influenza.
- Infants' Department, Malvern Link Council School, closed from November 15th to December 5th, on account of Chicken Pox and Scarlet Fever.
- Cowleigh School, closed from December 15th to 23rd, on account of Influenza.

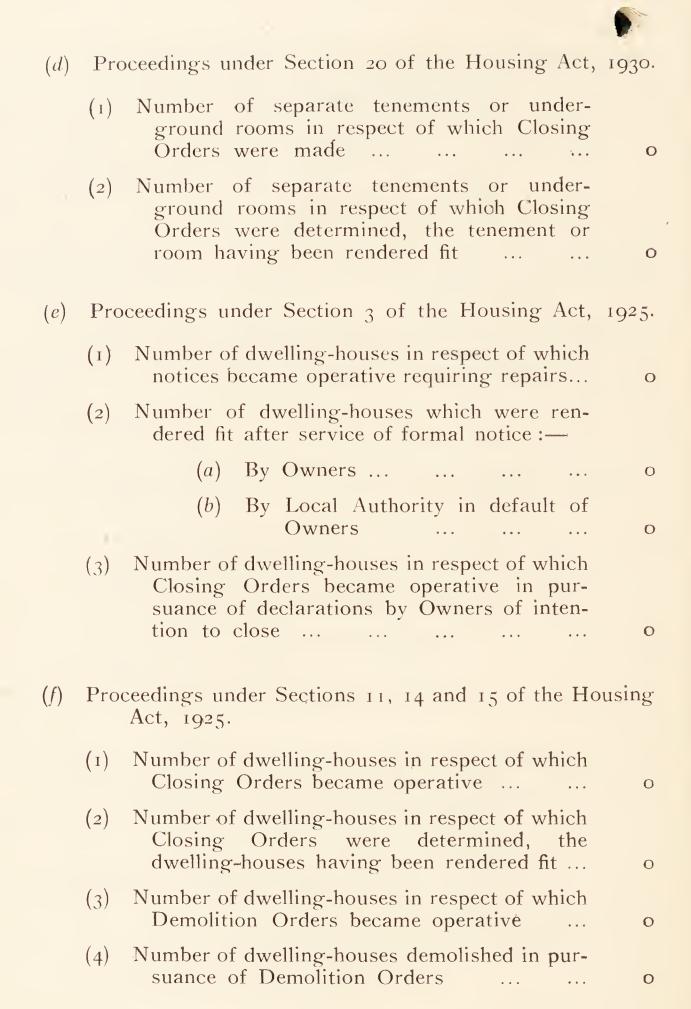
D.-Housing

Mr. Whitwham, your Officer under the Housing Acts, has furnished me with the following figures:—

1.—Inspection of Dwelling-houses during the Year.

- (1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) 230
 - (b) Number of inspections made for the purpose 230
- (2) (a) Number of dwelling-houses (included under sub-head (1) above), which were inspected and recorded under the Housing Consolidated Regulations, 1925 ... 83
 - (b) Number of inspections made for the purpose 83

| 3 | Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation | (3) N |
|--------|--|------------|
| | Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit | (4) N |
| 133 | for human habitation | |
| ICE OF | medy of Defects during the Year without Serv Formal Notice. | |
| 134 | mber of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers | Numb |
| | ction under Statutory Powers during the Year | III.— Асті |
| ousing | Proceedings under Sections 17, 18 and 23 of the HoAct, 1930. | (a) H |
| () | (1) Number of dwelling-houses in respect of which notices were served requiring repairs | (1 |
| | (2) Number of dwelling-houses which were rendered fit after service of formal notices:— | (2 |
| O | (a) By Owners | |
| O | (b) By Local Authority in default of Owners, | |
| | Proceedings under Public Health Acts. | (b) I |
| 7 | (1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied | (|
| / | (2) Number of dwelling-houses in which defects were remedied after service of formal notices:— | (: |
| 7 | (a) By Owners | |
| 0 | (b) By Local Authority in default of Owners | |
| ousing | Proceedings under Sections 19 and 21 of the HAct, 1930. | (c) I |
| 1 | (1) Number of dwelling-houses in respect of which Demolition Orders were made | (|
| 0 | (2) Number of dwelling-houses demolished in pursuance of Demolition Orders | (|



The need for new houses at low rentals remains.

Malvern grew rapidly from a village to a town in the middle of the last century, and a number of the cottages then run up to accommodate the workers; these now may be termed worn out and cannot be put in good repair at a reasonable cost, and under pre-war conditions would have been condemned.

E. - Inspection and Supervision of Food.

(a) MILK SUPPLY.

The farms and dairies have been inspected from time to time by myself and your Inspector. Conditions generally are very much better than they were some years ago, especially with regard to the folds. Some of the buildings, however, are old wooden structures and are difficult to be kept in a cleanly condition.

Dairies and dairying utensils are very generally kept in excellent condition.

The examination of samples for bacterial content and tubercular bacilli in this County comes under the charge of the Police.

(b) MEAT AND OTHER FOODS.

The nine registered slaughter-houses of the District have been visited from time to time. Thorough meat inspection, as mentioned in many previous reports, is impossible with the present staff, owing to the scattered nature of the District.

In some cases the owners or occupiers of shops had to have their attention drawn to their meat being exposed without any protection from street dust as required under the Public Health (Meat) Regulations, 1924.

Practically all the butchers now have a Frigidaire or other cold storage plant installed.

Generally the meat sold in this District is of good quality.

During the year the following articles of unsound food were destroyed:—

Beef: 6cwts. 17lbs.

Mutton: 5cwts. 3qrs. 11lbs.

Pork: 21lbs.

Miscellaneous Tinned Food: Meats, Fish, Fruits, Vegetables—85 tins.

Complaints have been made by some of the butchers of sheep being killed outside the District and being hawked round in the District. This is a difficult problem.

(c) Adulteration.

The Police are the Authority under these Acts.

(d) Chemical and Bacteriological Examination of Food.

The County Laboratory at Worcester is available for these examinations.

(e) Nutrition—Dissemination of Knowledge.

Lectures are given at the Infant Welfare Clinics on General Hygiene, but beyond this no special work has been done on the subject.

I might add that I consider that generally there has been an improvement in nutrition amongst the poorer members of the community during the last 10 or 12 years.

F.—Prevalence of, and Control over, Infectious and other Diseases.

The amount of Infectious Disease in the District during the year was, I consider, below the average. There was no real epidemic, though there were a certain number of connected cases of Scarlet Fever in the Link District during the last quarter.

The notifications received concerned the usual diseases only, and there was nothing outstanding to comment on.

With regard to Hospital accommodation, this is adequate for the needs of the District, and in exceptional circumstances cases of non-notifiable diseases are admitted at the discretion of the Public Health Authority.

As mentioned in previous reports, Anti-Scarlet Fever Serum is employed as a routine treatment in the Hospital, which has reduced the period of stay.

So far all cases of Scarlet Fever among the cottagers have been removed to Hospital, for in an old-fashioned district such as this "the fever" still means a grave illness. With regard to this point of accommodation, though it is sufficient for the needs of notifiable diseases, it would be quite insufficient to treat cases of measles, whooping cough, etc., during an epidemic: nor do I consider that the large extensions required for this purpose would be justified in a district such as this.

The school teachers in the District are prompt in notifying me of any cases of Infectious Diseases, whether notifiable or not, among their scholars.

Pathological and bacteriological specimens may be examined at the County Laboratory at Worcester, but I am unable to state what use has been made of the facilities. No action was taken with regard to providing artificial immunisation against Diphtheria (two cases only were notified).

No vaccinations were performed by the Medical Officer of Health under the Public Health (Smallpox Prevention) Regulations, 1917.

No other particular diseases require any special attention.

There are no facilities available in the Area for the deinfestation of verminous persons and their belongings.

The following is a list of the number of premises and articles which have been disinfected during the year:—

88 premises disinfected.

78 loads of bedding, clothing, etc., removed to your Hospital for disinfection by the 'Thresh' Steriliser.

As regards the prevalence of rats, some 12 complaints were received during the year of premises infested, and visits were made and rat poison provided gratuitously for those who requested it.

Rat Week was held from November 7th to the 12th, and details of the campaign will be found in Mr. Whitwham's Report.

There was one complaint with regard to mosquitoes on a pool situate on the Link Common, and this was drained and cleaned out.

NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS) DURING THE YEAR 1932.

SMALLPOX.

No case of this disease was notified.

SCARLET FEVER.

29 cases of this disease were notified, all but 6 were removed to your Hospital. The cases were scattered throughout the District during the year and, as I mentioned above, they were generally within the Malvern Link area.

5 cases were from institutions in the District—including the Open Air School.

There was no death from Scarlet Fever, and the monthly incidence was as follows:—

January, 2; April, 3; June, 5; September, 1; October, 4; November, 9; December, 5.

DIPHTHERIA.

2 cases only were notified during the year—in April—both occurring in the same Institution. They were removed to Hospital and made good recoveries.

ENTERIC FEVER.

3 cases of Para Typhoid B were notified during the year—in July. There was no apparent connection in the cases, one of which became infected from outside the District.

They were all treated at your Isolation Hospital and no death occurred.

PUERPERAL FEVER AND PUERPERAL PYREXIA.

No cases were notified.

PNEUMONIA.

26 cases of Pneumonia were notified throughout the year—August, September and November being the only months without notification.

Deaths from Pneumonia were 9, which would therefore seem that the Regulations as regards Notification of Pneumonia are being observed more completely than in years past.

ERYSIPELAS.

6 cases of Erysipelas were notified.

OPHTHALMIA NEONATORUM.

I case was notified. The doctor who notified the case has informed me that a small corneal opacity has been left.

(a) CANCER.

The incidence of Cancer remains very much as in previous years.

(b) Prevention of Blindness.

No action was taken under Section 66 of the Public Health Act, 1925.

(c) Tuberculosis.

During the year 21 cases of Pulmonary Tuberculosis and 8 cases of Non-Pulmonary Tuberculosis were notified, particulars of which are set out in the following table:—

| Age | New Cases. | | | | Deaths. | | | |
|----------|------------|-------------|--------|-----------|---------|----------------|--|--------------------|
| Periods. | Pulm | onary. | Non-Pu | ilmonary. | Pulmo | nary. | Non-Pul | lmonary. |
| | Μ. | F. | Μ. | F. | M. | F. | Μ. | F_{*} |
| 0 | | | | | | | | |
| I | 1 | | | | | | Name of the latest of the late | |
| 5 | | | I | | | | | |
| 10 | | | | | | | | |
| 15 | 1 | 2 | | 1 | | - ; | | NOTE OF THE PERSON |
| 20 | 3 | 2 | 1 | I | | 1 | | - |
| 25 | 2 | 1 | I | 1 | | 1 | 1 | _ |
| 35 | I | Sammanan | | | 1 | 1 | r Proposition | |
| 45 | 4 | | | Į. | 2 | | STATEMENT OF THE STATEM | 1 |
| 55 | - | 2 | | | | 2 | | |
| 65 & | 1 | I | | J | | I | *************************************** | |
| upwards | 5 | | | | | | | |
| | 13 | 8 | 3 | 5 | 3 | 6 | 1 | I |

8 cases received Sanatorium treatment during the year.

No action has been taken under the Public Health (Prevention of Tuberculosis) Regulations, 1925, or under Section 62 of the Public Health Act, 1925.

The Meteorological Report by your Surveyor, Mr. W. O. Thorp, and the statistics taken under his supervision, will be found on the last pages of this Report.

I remain, Ladies and Gentlemen,

Your obedient servant,

C. R. P. MITCHELL.

Sanitary Inspector's Office,

PUBLIC HEALTH DEPARTMENT,

THE COUNCIL HOUSE,

MALVERN,

May, 1933.

To the Chairman and Members of the Malvern Urban District Council.

Ladies and Gentlemen,

I have the honour to present to you the Annual Report of the Sanitary Inspector for the year 1932.

The major part of the work in connection with sanitary administration was carried out by my predecessor—Mr. Henry Hillyard—as my duties only commenced following his retirement last October, after completing some 36 years' service as your Sanitary Inspector.

In accordance with the requirements of the Ministry of Health and the Home Office, tables giving full particulars of the inspections made, together with notes thereon, will be found in the Report.

The work carried on includes House to House Inspections; Inspections of Dairies, Cowsheds and Milkshops; Slaughterhouses; Butchers' Shops; Workshops; Rat infested premises, and investigations after cases of Infectious Disease.

Summary of Inspections.

| Housing Acts. Houses Inspected | | 83 |
|--|-------|-----|
| Public Health Acts. Houses Inspe | ected | 147 |
| Milk and Dairies Orders | | 54 |
| Public Health (Meat) Regulations: | | 0 1 |
| Butchers' Shops | | 23 |
| Slaughterhouses Factory and Workshops Acts | | 34 |
| Rats and Mice (Destruction) Act | • • • | 43 |
| The the (Destruction) Act | | 72 |

This does not include re-inspections and subsequent visits for the inspection and examination of works in progress.

Complaints.

The Register shows that 112 complaints were received during the year under review, these having reference to the following matters:—

| 8 |
|----|
| 12 |
| |
| 4 |
| 39 |
| 15 |
| I |
| 2 |
| 16 |
| 2 |
| 4 |
| 12 |
| 7 |
| 16 |
| |

Where a nuisance or defect was found to exist, steps were taken to remove the cause of the complaint by drawing the attention thereto of persons responsible by letter or interview, a procedure which has generally been effective.

Summary of Improvements.

Details respecting improvements effected during the year will be found in the following summary:—

| 3 | |
|--|------|
| Yards Paved or Re-paved | 3 |
| Dangerous Walls, Chimneys, etc., dealt with . | |
| Dwellings Repaired: | |
| VV 7 - 11 | 15 |
| Floors | 20 |
| Roofs | |
| Internal Fittings | |
| 1 1, 1,1 | 15 |
| TTT: 1 T) '1 1 | I |
| Windows made to Open or Venilation Improve | ed 2 |
| Windows Repaired | 13 |
| Rainwater Pipes and Eaves Gutters Repaired . | 3 |
| Dwellings Wholly or Partially Cleansed, Re | |
| coloured or Limewashed | |
| House Drains Reconstructed | 4 |
| Partially Reconstructed | 8 |
| House Drains Trapped, Ventilated or Repaired. | |
| House Drains Unstopped | |
| Garage and Stable Drains Repaired and Unstoppe | * |
| Rainwater Pipes Disconnected from Drains an | |
| Defective Lip Traps Abolished | |
| Inlets to Drains Removed from Inside Dwelling | |
| | 14 |
| P C C C C C C C C C C C C C C C C C C C | |

| Gullies and Intercepting Traps Fixed | ΙI |
|--|-----|
| Ventilation and Anti-Syphonage Pipes Fixed | 5 |
| Soil Pipes Reconstructed | 4 |
| Soil and Ventilating Pipes Repaired | 3 |
| Numbers for which Sewer Alterations have been | 3 |
| mada | 2 |
| N_{opp} W_{obs} C_{locate} D_{opp} 1.1 | |
| New Water Closets Provided New Water Closets Built in place of Faulty , | 3 |
| Water Closets Papaired Ventileted or Claused | I |
| Water Closets Repaired, Ventilated or Cleansed | 16 |
| Water Closets Provided with Flushing Appliances | |
| and Water Supply | 30 |
| Water Closets Fitted with Modern Pans and Traps | 22 |
| Privies Abolished | 1 |
| New Washing-up Sinks and Lavatory Basins Pro- | |
| vided | 22 |
| Waste Pipes and Traps Fitted to Sinks, Baths and | |
| Lavatories | 17 |
| Town Water laid on from Town Main | 21 |
| Faulty Cisterns and Wells Abolished | 2 |
| Other Defective and Insufficient Supplies dealt with | 2 |
| New Dust-bins Provided | 2 |
| Urinals Refitted with Waste Pipe, Trap, Ventila- | And |
| tion, and Cleansed | I |
| Accumulations of Manure Removed | i |
| Nuisances from Animals | • |
| Other Nuisances Abated and Defects Remedied | I |
| | 3 |
| House Drains Tested | 18 |

Housing.

The Housing Consolidated Regulations, 1925 and 1932, require the Local Authority to make provision for a thorough inspection to be carried out from time to time of dwelling-houses in their District.

83 houses were inspected and recorded under the Regulations during the year 1932. These were mainly situated in the Malvern Link area.

As a result of these inspections, the following summary of unsatisfactory conditions has been compiled:—

| Uncleanly Conditions | | • • • | | | | 14 |
|----------------------|----------|---------|---------|--------|-------|----|
| Dampness | | | • • • | | | 7 |
| | • • • | | • • • | | | 12 |
| D . · | • • • | • • • | | • • • | , · · | - |
| Closet Accommodation | | • • • | • • • | • • • | • • • | 2 |
| | | • • • | | | | 6 |
| Paving or Sanitary | Condi | ition o | of any | Yard | or | |
| Outbuilding | • • • | • • • | • • • | | | 2 |
| Any Defect in other | matte | re whi | oh mar | · tond | 40 | |
| in befeet in other | matte | 15 WIII | .cn may | tend | to | |
| render the Dw | velling- | house | Dang | erous | or | |
| Injurious to the | Inhab | oitants | | | • • • | 5 |
| Overcrowding | | | | | | () |
| o release walling | • • • | | | • • • | • • • | 1 |

Although town water is available, supplies to water closets, etc., are frequently found disconnected, this is an example of the water meter system when the rate charged is per 1,000 gallons consumed. The occupiers of houses wilfully disconnect the supply to the flushing cistern with a view to economy, hand flushing is resorted to, this being done with waste water or from pumps.

The conditions found when carrying out inspections can be well imagined when a water closet of the wash-down pedestal type is in such a state that it ranks with conditions only comparable with a neglected pail closet. From a public health standpoint this is very objectionable, apart from being a bad object lesson to children.

Houses Unfit for Human Habitation.

A Demolition Order was made and served in respect of the cottage known as Rybus Cottage, Cowleigh Road, North Malvern.

2 cottages were also closed voluntarily, an undertaking being given by the owners to cease to use them for human habitation.

Overcrowding in Dwelling Houses.

At the end of the year 11 houses were officially known to be overcrowded. The number of cases of overcrowding abated during the year was 3. Overcrowding is a chief consideration of the Housing Committee in the selection of tenants from the list of applicants for Council Houses. 48 houses are in course of erection and will be ready for occupation during the early months of 1933. These are two and three bedroom type and are being built to let at inclusive rents of approximately 7/- and 8/6, a figure which will come within the means of persons of the working classes engaged as labourers, etc., and it is hoped that in the allocation of these houses a greater part of the overcrowding will be overcome.

Council Houses.

The Council's Housing Estates received full attention. Complaints were promptly investigated, and where necessary remedial works were carried out under the supervision of your Surveyor.

Common Lodging House.

12 inspections were made at the Common Lodging House which is situated in Belmont Road. It was not found necessary to report any breach of the Byelaws, and it has been perfectly free from Infectious Disease.

Drainage and Sanitation.

During the year 4 houses were entirely re-drained, and the drainage systems of 8 houses were partially reconstructed.

Sanitary Certificates.

5 Sanitary Certificates were issued in respect of the following premises, subsequent to the work being carried out to the Specification and to the satisfaction of your Sanitary Inspector:—

and 2, The Bungalow, St. James's, West Malvern.
Granta Hotel, Graham Road, Malvern.
Tintern, West Malvern.
Portswood, Priory Road, Malvern.
St. Asaph, Christ Church Road, Malvern.

The high standard of work necessary to grant a certificate being issued has been maintained.

Infectious Disease.

The total number of patients sent to your Isolation Hospital during the year was 34, and the following is a summary of the cases admitted:—

From this District:

| Scarlet Fever | | £ ♦ ♦ | • • • | 24 | |
|------------------------|-----|-------|-------|----|----|
| Diphtheria | • 4 | • • • | • • • | 2 | |
| Paratyphoid | | | | 3 | |
| Observation Diphtheria | | • • • | | I | |
| Whooping Cough | | • • • | | I | |
| | | | | | 31 |

From Martley Rural District Council:

| Scarlet Fe | | | • • • | . • c | | 2 | |
|------------|-------|-------|-------|-------|-------|----|----|
| Typhoid | • • • | • • • | • • | | • • • | I | |
| | | | | | - | | 3 |
| | | | | | | _ | |
| | | | | | Tot | al | 34 |

I case from within the District and 3 from outside were admitted as paying patients in accordance with the scale of charges made.

In connection with these removals 3 cases were from private institutions, whilst 4 cases of Scarle! Fever were treated at Sanatoria belonging to the various private institutions.

The usual steps have been taken for preventing the spread of Infectious Disease, and investigations were made under the direction of your Medical Officer, and disinfection of the homes and clothing of infected persons have been carried out.

Disinfection.

The number of rooms disinfected is 143. 78 loads of bedding, clothing, etc., were removed to your Hospital for disinfection, and 6 lots of bedding, etc., have been destroyed.

6 library books, having been exposed to an infectious disease, were destroyed.

Factory and Workshops Act, 1901.

The following table shows the list of Factories, Workshops and Workplaces on the Register:—

| Furnishers an | nd U | Jpholste | rers | | • • • | 4 |
|----------------|------|----------|-------|-------|-------|----|
| Ironmongers | and | Tinsmi | ths | | | 3 |
| | | | • • • | • • • | • • • | 21 |
| Dressmakers | and | Milliner | rs . | | | 6 |
| | | | • • • | | | 4 |
| Builders, etc. | • | | • • • | | • • • | 7 |
| Shoemakers | | | * * * | | | 6 |
| | 4 4 | | | | | 9 |
| Various | | | • • • | | | 15 |
| | | | | | | |
| | | | | | Total | 75 |

The number of inspections made of Factories, Workshops and Workplaces are as follows, the table being in accordance with the requirements of the Home Office:—

| | Number of | | | | | |
|---|-----------------|---------------------------|--------------------------------|--|--|--|
| Premises (1) | Inspections (2) | Written Notices (3) | Occupiers Prosecuted (4) | | | |
| Factories (including Factory Laundries) Workshops (including Workshop | 5 | | | | | |
| Laundries) Workplaces (other than Outworkers' | 38 | opinion manage. | | | | |
| Premises) | | | | | | |
| · Total | 43 | _ | | | | |

Defects found in Factories, Workshops and Workplaces are as follows:—

| | N | No. of Offen- | | |
|---|-------|---------------|----------------------------------|--|
| Particulars | Found | Remedied | Referred to H.M. Inspector | ces in respect to which Pros- ecutions were instituted |
| (1) | (2) | (3) | (4) | (5) |
| Nuisances under the Public | | 1 | | |
| Health Acts: | | | 7 | |
| Want of Cleanliness | 10 | 10 | | |
| Want of Ventilation | | | ~~~ | |
| Overcrowding | | | | |
| Want of drainage of | | | | |
| floors | | | | STATE OF THE PARTY |
| Other nuisances | | | | |
| Sanitary Accommodation: | | | | |
| Insufficient | 3 | 3 | | |
| Unsuitable or defective | I | I | | |
| Not separate for sexes | | | | |
| Offences under the Factory | | | | |
| and Workshop Acts: | | | | |
| Illegal occupation of | | | | |
| underground bake- | | | | |
| houses (s.101) | - | | | - |
| Other offences | | | | |
| (Excluding offences relating | | | | |
| to outwork and offences under the Sections men- | | | | |
| tioned in the Schedule to | P | | | |
| the Ministry of Health | | | | |
| (Factories and Workshops | | | | |
| Transfer of Powers) Order, | | | | |
| Total | 14 | 14 | | |

Two complaints were received from H.M. Inspector of Factories and Workshops.

Inspection and Supervision of Food.

(a) MILK SUPPLY.

There are now 16 Cowkeepers on the Register, of whom 13 are also Dairymen. In addition, there are 13 Dairymen who are not Cowkeepers.

27 Dairymen are on the Register of Retail Purveyors of Milk whose premises are situated outside the Malvern Area.

THE MILK (SPECIAL DESIGNATION) ORDER, 1923.

Two Retailers were granted Supplementary Licences under the above Order, one being Grade A and the other for Pasteurised Milk.

Requests for cleansing and limewashing of cowsheds were made in five instances. One cowshed was entirely reconditioned and drained.

(b) MEAT AND OTHER FOODS.

Slaughterhouses.

The Slaughterhouses consist of nine small buildings situated in widely different parts of the district. They are old-established places, and from evidence obtained by the Council from various sources, when considering plans prepared for submission to the Ministry for the erection of a Public Abbatoir, it appeared that the actual buildings or premises had probally been utilised for slaughtering before the law relating to licensing came into operation.

Inspections were made from time to time by your Sanitary Inspector, in company with your Medical Officer, and, with two exceptions, the premises were found to be well conducted and your Byelaws observed.

Six complaints were received of slaughtering being carried on at unlicensed or unregistered premises, and investigations were promptly made with a view to putting an end to this practice.

The Butchers' Shops in the district, to which some 23 visits were made, were found to be kept in a clean and satisfactory manner. It is gratifying to note that butchers are taking advantage of modern refrigerating equipment, which supersedes the old-fashioned ice box.

Unsound Food.

The following articles of diseased or unsound food have been condemned and destroyed as being unfit for human consumption:

Beef - - - 6 cwts. 17 lbs.

Mutton - - - 5 cwts. 3 qrs. 11 lbs.

Pork - - - 21 lbs.

Miscellaneous Tinned Food:

Meats, Fish, Fruits, Vegetables 85 tins

Offensive Trades.

The business of Fish Fryer, of which there are three establishments within the district, is the only trade scheduled as an Offensive Trade carried on in Malvern.

Inspections were frequently made at these premises, which were at all times found to be kept in a satisfactory manner and in accordance with your Byelaws.

Rats and Mice (Destruction) Act, 1919.

Inspections were made of some 72 privately occupied lands and premises subsequent to complaints from occupiers of the prevalence of rats, when advice and assistance was given on the destruction and eradication of the rodent. Considerable attention was paid to the important factor of the rat proofing of premises.

During the week fixed as National Rat Week'by the Ministry of Agriculture and Fisheries, a campaign was carried out on the same lines as in previous years.

Samples of poisonous preparations such as the Ministry recommend were given to some 164 applicants.

The services of rat catchers were engaged for the purpose of visiting premises at the request of owners or occupiers, and this was greatly appreciated by the public.

During Rat Week 779 rats were killed, and subsequently taken to the Destructor Works for disposal.

To meet the wishes of the Minister of Agriculture and Fisheries, a report was forwarded on the methods adopted within your area during the campaign.

Legal Proceedings.

It was not necessary to institute any legal proceedings during the year.

Conclusion.

I am indebted to Dr. Mitchell, the Medical Officer of Health, and to Mr. Hillyard, for their kind co-operation and the invaluable help so freely given, which I gratefully acknowledge.

My thanks are also due to Mr. R. A. Upstone, and I take this opportunity to express my appreciation of the excellent manner in which he has carried out his duties appertaining to the Department.

I am, Mr. Chairman, Ladies and Gentlemen,

Your obedient servant,

HUGH L. WHITWHAM.

MALVERN METEOROLOGICAL STATION.

The year 1932 may be described as a dull year, the sunshine being 137 hours short of the yearly average for the past twenty years. Other noteworthy features were the extreme mildness of the first three weeks in January, the mean temperature for the month being 4 degrees above normal, and barometric pressure reached the unusual figure of 1050 millibars on the 26th. February was quiet and abnormally dry with only one-tenth of an inch rainfall, the dryest February for 50 years. March was also deficient in rainfall, whilst April was cool and wet. May distinguished itself with an exceptionally heavy rainfall ($7\frac{1}{4}$ inches), of which $1\frac{3}{4}$ inches fell on the 1st and $1\frac{1}{2}$ inches on the 20th. In marked contrast to May, June was remarkable for its dryness, twenty-six days without rain being recorded, but $1\frac{1}{4}$ inches falling on the last day of the month brought the total rainfall for the month to $1\frac{3}{4}$ inches. Sunshine in June was good with 220 hours, II hours above the average. July was dull, and August had 20 hours' sunshine above the normal, whilst temperature was more than 4 degrees above the average, the exceptionally high shade temperature of 91 degrees being registered on the 20th. Rainfall was slight except for an exceptionally violent thunderstorm on the 20th—21st when $2\frac{1}{4}$ inches of rain fell, causing some flooding in the lower part of the district. September was deficient in sunshine and was above the average in rainfall. There was a short warm spell between the 13th and 17th when 77 degrees was recorded on the 15th. October was unsettled and wet, whilst November was dry. As in the previous year, December was dry with sunshine slightly above the normal.

On the whole the year was noteworthy for its absence of gales and high winds. January was peculiarly noteworthy in the fact that on 21 days the wind was from a Southerly direction and 5 days were calm, which accounts for the high temperature previously referred to, whilst the reverse occurred in February, 25 days the wind coming from a Northerly point. In March winds were light from a Northerly quarter in the first half, and Southerly the latter half of the month, strong on the morning of the 28th. There were fresh to strong winds from the S.W. on the 7th and 8th of April, and from the N.W. on the night of the 28th. The Summer winds were light, though a gale from the N.W. occurred on the morning of September 11th. In October there was a S.W. gale throughout the 2nd, and a strong wind from the West, veering N.W., on the night of the 29th and continuing throughout the 30th.

November was calm except for a Westerly gale on the morning of the 27th, whilst a strong to gale force wind occurred from the S.S.W. on the 18th of December, the rest of the month being calm. Thunderstorms occurred on the evening of May 1st, accompanied by very heavy rain which continued through the

night. A slight thunderstorm occurred on the afternoon of June 28th, and an exceptionally violent one shortly before midnight on Saturday, August 20th, when $1\frac{3}{4}$ inches of rain fell in 20 minutes, turning the streets into rivers. Slight thunderstorms were also recorded on the 28th and 29th of the same month. There was no prolonged spell of frosty weather during the year, and a freedom from any heavy snowfall.

The variations of rainfall recorded for the year at different observation points maintained by the Council is shewn as follows:—

Public Library (Meteorological Station)
West Malvern
British Camp Reservoir
Bromsberrow Pumping Station
Barnard's Green Sewage Disposal
Works (Meteorological Station)

847 mm. = 33'34 ins.
856 mm. = 33'75 ins.
796 mm. = 31'34 ins.
859 mm. = 33'83 ins.

Rainfall was recorded on 185 days, but of these '04 of an inch

or over occurred on 121 days.

Hottest Days: June 27th (78 deg.); July 9th—10th (78 deg.);

August 11th (88 deg.); August 19th (91 deg.); September 15th (77 deg.).

Coldest Nights: February 10th—11th (25 deg.); March 12th (25 deg.).

Wettest Month: May-183 mm. = 7.2 inches.

Dryest Month: February—2 mm. = o'1 inches.

WIND SUMMARY.

| | VV IMD | DOMMAKI. | |
|--------------------------------|-----------------------------|-----------------------------------|-----------------------------------|
| N. N.N.E. N.E. E.N.E. | 24 days 11 ,, 32 ,, 4 ,, | E. E.S.E. S.E. S.S.E. | 4 days 3 ,, 17 ,, 24 ,, |
| S. S.S.W. S.W. W.S.W. | 71 days 45 days 16 ,, 29 ,, | W. W.N.W. N.W. N.N.W. | 48 days 28 days 18 ,, 51 ,, 13 ,, |
| | Total | 340 days. 26 Calm days. 366 days. | 110 days |

(Signed) WM. OSBORNE THORP. Meteorological Station.

Summary of 9 a.m. Records.

| Karth Temperature | 4ft. deep Deg. F. | | 43.8 | 1.24 | 41.2 | 44.4 | 0.64 | 54.5 | 2.65 | 61.4 | 6.65 | 52.4 | 48.6 | 44.8 | 1 | 20.1 |
|-------------------|--------------------------------------|---------|----------------|----------|----------------|-------------|----------------|-----------------|-----------------|-----------------|-----------|------------------|----------------|----------------|-------|-------------|
| Karth Te | 1ft. deep Deg. F. | | 41.5 | 38.6 | 39.7 | 14 9 | 52.0 | 59.4 | 2.29 | 64.5 | 6.85 | 50.3 | 44.4 | 6.04 | | 49.8 |
| Duicht | Sunshine Hours. | | 26.0 | 21.3 | 138.6 | 117.2 | 113.3 | 2.612 | 147.2 | 2.981 | 1245 | 107.4 | 55.5 | 54.7 | 1375 | - |
| H.m.:dit | of Atmos. | | 16 | S rC | 77 | 16 | 77 | 70 | 92 | 77 | 81 | 82 | 87 | 85 | | 80 |
| et Days. | 1.0 M/M or over. | | II | 0 | 6 | 0 0 | 17 | 4 | IO | 7 | 12 | 91 | 00 | 00 | [23 | |
| No. of Wet Days. | o'z M/M. or over | | H S | rv | 12 | 24 | 24 | 9 | 91 | ∞ | 15 | 24 | 0 7 | 15 | 184 | |
| TXZ-44-C4 | wellest Day M/M | | 17'4 on 9th | on 9th | 184 on 27th | 19.3 on 3rd | 44.8 on 1st | 31 I on 30th | r3.8 on 13th | 53.8 on 20th | co 2 cond | 2 r .9 on 7th | 13.2 on 4th | 8.3 on 31st | | |
| 11-3-:- C | naintan in M/M | | 77 9 | 9.2 | 4.5 | 4.96 | 182.5 | 45.6 | 45.7 | 8.16 | 84.8 | 6.66 | 9.04 | 35.4 | 847.5 | (33'3 ins.) |
| - | Average Daily Variation | | 6.6 | 9 2 | 6.21 | 115 | 9.21 | 16.3 |) () () | 14.3 | 12.3 | 6.2 | 7.3 | | | 1.01 |
| ATURE. | Mean Temp. | Fahr. | 43.4 | 37.8 | ÷ + | 44 6 | 509 | 58 2 | 2.09 | 9.49 | 568 | 47.5 | 44 3 | 406 | | 49.3 |
| TEMPERATURE | Average. | Degrees | 38.8 | 34.0 | 34.9 | 38.9 | 9.44 | 1.03 | 55.2 | 57.5 | . 50.7 | 46.0 | 40.1 | 384 | | 44.2 |
| | Daily A | | 48.1 | 9.15 | 478 | 20.+ | 57.2 | 66.4 | 65.3 | 8.12 | 0.89 | 48.9 | 48.0 | 429 | | 54.3 |
| Av. Corrected | Barometric Pressure Millibars. | | 2.2201 | 1034'1 | 10165 | 1,6001 | 1012.3 | 9.6101 | 1013.1 | 8 6101 | 1.8101 | 1003.8 | 4.6101 | 2.6101 | | 6,9101 |
| | 1932 Month. | | January | February | March | April | May | June | July | August | September | October | November | December | Total | Average |



